📘 Sales Variance Report — Cross-Footing & Sales Volume Variance

(Single-Product Company)

🔹 1. Meaning of Cross-Footing

Cross-footing = checking that the **variances balance both down and across**.
Each line (Revenue, Variable Costs, Contribution Margin, Operating Income) should satisfy:

Flexible Variance+Sales Volume Variance=Static (Total) Variance\text{Flexible Variance} + \text{Sales Volume Variance} = \text{Static (Total) Variance}Flexible Variance+Sales Volume Variance=Static (Total) Variance

If this holds for all lines → report **cross-foots correctly**.

🔹 2. Exam Tip

If asked for **Sales Volume Variance** without specifying a line → it usually means the **Sales Volume Variance for Operating Income (the bottom line)**.

🔹 3. Example

Line	Static Budget	Flexible Budget	Actual	Flexible Variance (A–F)	Sales Volume Variance (F–S)	Static Variance (A–S)
Revenue	500,000	550,000	528,000	**22,000 U**	**50,000 F**	**28,000 F**
Variable Costs	300,000	330,000	341,000	**11,000 U**	**30,000 U**	**41,000 U**
Contribution Margin	200,000	220,000	187,000	**33,000 U**	**20,000 F**	**13,000 U**
Fixed Costs	120,000	120,000	120,000	–	–	–
Operating Income	**80,000**	**100,000**	**67,000**	**33,000 U**	**20,000 F**	**13,000 U**

✅ **Cross-foot check:**
Flexible Variance + Sales Volume Variance = Static Variance for every line.

e.g. Operating Income → (−33 U) + (20 F) = (−13 U) ✓

🔹 4. Two Ways to Calculate Sales Volume Variance for Operating Income

1️⃣ **Using Contribution Margin:**

Sales Volume Variance (OI) = Flexible CM − Static CM = 220,000−200,000=₹20,000F

2️⃣ **Using Operating Income:**

Sales Volume Variance (OI) = Flexible OI−Static OI = 100,000−80,000=₹20,000F

✓ Both give **₹20,000 Favorable**

🔹 **5. Quick Interpretation**

- Sold 1,000 more units → volume effect ₹20,000 F.
- Lower selling price (₹48 vs ₹50) → price variance ₹22,000 U.
- Net static variance on OI → **₹13,000 U (Unfavorable)**.

Summary Formula:
Sales Volume Variance (Operating Income) = Flexible O I — Static OI
or equivalently
Sales Volume Variance (OI) = Sales Volume Variance (CM)